

CA2320254

Publication Title:

INPUT/OUTPUT (I/O) SCANNER FOR A CONTROL SYSTEM WITH PEER DETERMINATION

Abstract:

Abstract of CA2320254

The present invention is directed to an apparatus for communication with at least one device which resides on a standard communications network using a standard communications protocol. The apparatus has a scanner for scanning the device, a device scan table for storing data relating to the device, and a standard communications interfaces for interfacing between to the device scanner and the standard communications network using the standard communication protocol. The present invention is also directed to a device scanner for a first device located on a first node of a standard communications network. The device scanner is provided for scanning devices on the standard com 11e4 munications network and for identifying a second device on a second node of the standard communications network. The device scanner has an initiator for initiating a first communications command in a peer protocol format to the second node, a receptor for receiving from the second node a second communications command in the peer protocol format, in response to the first communications command, and an identifier for identifying the second device on the second node as a peer device. This apparatus and device can be used within a control system for monitoring input devices and for controlling output devices which reside on the standard communications network. The standard communications network can be an Ethernet network, and the standard communications protocol used therein can TCP using Modbus.

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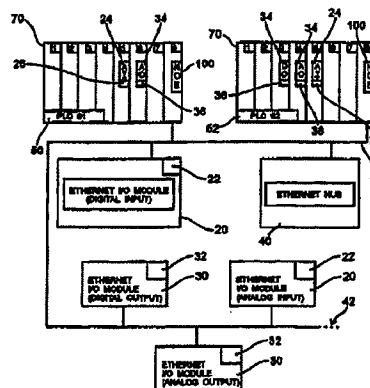
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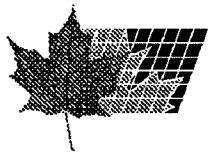
(54) SCANNEUR D'ENTREE/SORTIE (E/S) POUR UN SYSTEME DE COMMANDE A DETERMINATION
D'HOMOLOGUE

(54) INPUT/OUTPUT (I/O) SCANNER FOR A CONTROL SYSTEM WITH PEER DETERMINATION

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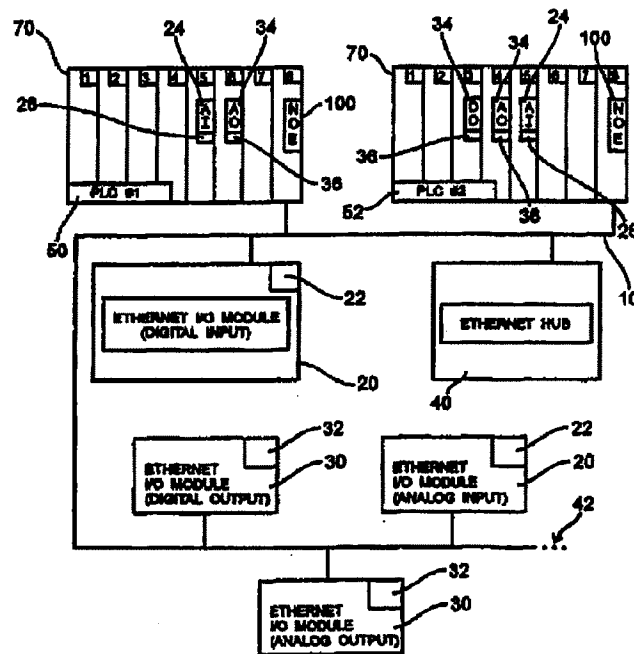
The present invention is directed to an apparatus for communication with at least one device which resides on a standard communications network using a standard communications protocol. The apparatus has a scanner for scanning the device, a device scan table for storing data relating to the device, and a standard communications interfaces for interfacing between to the device scanner and the standard communications network using the standard communication protocol. The present invention is also directed to a device scanner for a first device located on a first node of a standard communications network. The device scanner is provided for scanning devices on the standard communications network and for identifying a second device on a second node of the standard communications network. The device scanner has an initiator for initiating a first communications command in a peer protocol format to the second node, a receptor for receiving from the second node a second communications command in the peer protocol format, in response to the first communications command, and an identifier for identifying the second device on the second node as a peer device. This apparatus and device can be used within a control system for monitoring input devices and for controlling output devices which reside on the standard communications network. The standard communications network can be an Ethernet network, and the standard communications protocol used therein can TCP using Modbus.





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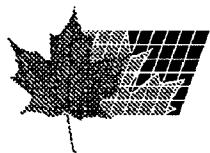
(54) **SCANNEUR D'ENTREE/SORTIE (E/S) POUR UN SYSTEME DE
COMMANDE A DETERMINATION D'HOMOLOGUE**
(54) **INPUT/OUTPUT (I/O) SCANNER FOR A CONTROL SYSTEM
WITH PEER DETERMINATION**



(57) L'invention concerne un appareil conçu pour communiquer avec au moins un dispositif qui réside sur un réseau de communications standard, au moyen d'un protocole de communication standard. Ledit appareil est dotée d'un scanneur qui scanne le dispositif, d'une table

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de scannage de dispositif, conçue pour mémoriser les données relatives au dispositif et d'une interface de communication standard, qui assure l'interface entre le scanner de dispositif et le réseau de communication standard, au moyen du protocole de communication standard. L'invention porte également sur un scanner de dispositif pour un premier dispositif situé sur un premier nœud d'un réseau de communications standard. Le scanner de dispositif est conçu pour balayer des dispositifs sur le réseau de communications standard, et pour identifier un deuxième dispositif sur un deuxième nœud du réseau de communications standard. Le scanner de dispositif possède un demandeur qui envoie une première commande de communication en format protocole homologue à un deuxième nœud, un récepteur pour recevoir du deuxième nœud une deuxième commande de communication en format de protocole homologue, en réponse à la première commande de communication, et un identificateur pour identifier le deuxième dispositif sur le deuxième nœud en tant que dispositif homologue. Lesdits appareil et dispositif peuvent être utilisés dans un système de commande pour le contrôle des dispositifs d'entrée et pour la commande de dispositifs de sortie qui résident sur le réseau de communications standard. Le réseau de communications standard peut être un réseau Ethernet, et le protocole de communications standard utilisé dans ce dernier peut être un Modbus à TCP.

data relating to the device, and a standard communications interfaces for interfacing between to the device scanner and the standard communications network using the standard communication protocol. The present invention is also directed to a device scanner for a first device located on a first node of a standard communications network. The device scanner is provided for scanning devices on the standard communications network and for identifying a second device on a second node of the standard communications network. The device scanner has an initiator for initiating a first communications command in a peer protocol format to the second node, a receptor for receiving from the second node a second communications command in the peer protocol format, in response to the first communications command, and an identifier for identifying the second device on the second node as a peer device. This apparatus and device can be used within a control system for monitoring input devices and for controlling output devices which reside on the standard communications network. The standard communications network can be an Ethernet network, and the standard communications protocol used therein can TCP using Modbus.

